Serial No. 10/729,201
Atty. Doc. No. 2002P06120WOUS

D. Not Entr MJ 8/5/06

IN THE CLAIMS:

Please amend the claims as shown.

1. (currently amended) A method for producing monocrystalline structures, components or workpieces on substrates, comprising:

providing epitaxial growth of an epitaxial layer;

melting a surface of the component by an energy input of an energy source by a ~~focused length~~ focal spot of the energy source having a substantially linear, elliptical or rectangular geometry with a width corresponding to a width of the surface to be melted and a length in a direction of movement of the focal spot transverse to the width that is less than the width;

advancing the ~~focused length~~ focal spot in a single continuous movement in ~~a z~~ the direction transverse to the width only;

controlling a temperature of the focused length of the energy source by an optical system to determine when a next epitaxial layer is to be formed;

feeding material to the molten area; and

melting the fed material completely, whereby the molten material is introduced into the monocrystalline structure to solidify.

2. (previously presented) The method as claimed in claim 1, wherein the energy input takes place by a laser.

3. (previously presented) The method as claimed in claim 1, wherein the energy input takes place by electron beams.

4. (currently amended) The method as claimed in claim 1, wherein the ~~focused length~~ focal spot produces a molten area with a substantially linear, elliptical or rectangular geometry.